
Portfolio – MRI Training & Protocol Design

 **Dr. Nader Lohrasbi**

- PhD in Medical Physics
- MSc in Advanced MRI
- BSc in Radiologic Technology
- 20+ years of experience in MRI physics, protocol design, and advanced imaging techniques.
- Certified MBA & DBA, specialized in healthcare management.

Introduction

Magnetic Resonance Imaging (MRI) is one of the most complex and powerful tools in modern medicine. Optimal use requires deep knowledge of physics, imaging parameters, safety, and protocol customization for each clinical scenario.

In this portfolio, I present a comprehensive overview of my skills, experience, and methods for delivering high-quality MRI education and protocol optimization.

Services Offered

Customized MRI Protocol Design

- Tailoring protocols for various anatomical regions and clinical indications (neuro, musculoskeletal, cardiac, abdominal, etc.).
- Reducing scan time while maintaining or improving diagnostic quality.
- Addressing patient-specific challenges (e.g., metal implants, claustrophobia, pediatric protocols).

MRI Physics Education

- Detailed explanation of MRI fundamental physics (T1/T2 relaxation, RF pulses, gradients, k-space).
- Advanced topics like diffusion-weighted imaging (DWI), perfusion, spectroscopy, and functional MRI.

Technical Training

- Optimizing pulse sequences (Spin Echo, GRE, EPI, FLAIR, etc.).
- Artifact recognition and correction strategies.
- MRI safety principles for staff and patients.

✔ Clinical Applications Guidance

- Selecting appropriate protocols for various diseases (stroke, tumors, degenerative diseases, etc.).
 - Interpreting advanced MRI techniques (DWI, DTI, MR perfusion).
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● Projects & Achievements

- Designed over **300 MRI protocols** across major hospitals in Iran and internationally.
 - Trained more than **200 MRI technologists and radiologists** through hands-on workshops and seminars.
 - Led protocol optimization projects reducing scan times by up to **40%**, improving patient throughput and image quality.
 - Contributed to **peer-reviewed publications** on advanced MRI techniques and AI integration in MRI diagnostics.
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● Sample Deliverables

- Personalized MRI protocol documents.
 - Illustrated guides for technologists.
 - Video tutorials explaining key physics concepts.
 - Protocol comparison tables for different scanner models/vendors.
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● Why Choose My Services?

- ◆ Unique blend of academic knowledge and practical experience.
 - ◆ Proven track record of successful protocol optimization.
 - ◆ Clear, engaging educational materials tailored to your team's needs.
 - ◆ Passionate about advancing MRI standards for better patient outcomes.
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● Contact

For further details, please don't hesitate to message me. I am excited to help you or your team master MRI protocols and physics, ensuring excellence in imaging and patient care.

Contact

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